



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Stefan SCHULTE et al.

Confirmation No.: 6170

Serial No.: 10/743,792

Art Unit: 2877

Filed: December 24, 2003

Examiner: Samuel A Turner

For: INTERFEROMETER SYSTEM
AND METHOD FOR
RECORDING AN
INTERFEROGRAM USING
WEIGHTED AVERAGING OVER
MULTIPLE FREQUENCIES, AND
METHOD FOR PROVIDING AND
MANUFACTURING AN OBJECT
HAVING A TARGET SURFACE
(As Amended)

Old Attorney 007413-070
Docket No.:

New Attorney 861840-999020
Docket No.:

AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The enclosed Amendment is in response to the Office Action dated December 14, 2004 for the above identified patent application.

Petition for Extension of Time under 37 CFR 1.136: It is respectfully requested that the time for response to the Office Action dated December 14, 2004 be extended for a period of 1 months(s) from March 14, 2005 to April 14, 2005 .

The Commissioner is hereby authorized to charge any required fee(s) to Jones Day Deposit Account No. 50-3013. A copy of this sheet is enclosed for such purpose.

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REMARKS

This Amendment responds to the Office Action mailed December 14, 2004. New claims 13-14 have been added. After entry of this Amendment, claims 1-14 are pending. Claims 1, 6, 7 and 10 have been amended. Claims 6 and 7 have been amended to recite a radiation receiving surface in place of screen, and these claim changes are not intended to be related to patentability or to narrow the claim scope. Claim 10 has been amended in conformity with claim 7. The indication of allowable subject matter in claims 9 and 10 is acknowledged with appreciation.

Objection to the Title

The Office Action contains an objection to the title as allegedly not being sufficiently descriptive. A new title has been proposed herein, and withdrawal of this objection is requested.

Art Rejections

The Office Action contains a rejection of claims 1-8 under 35 U.S.C. § 102(e) as allegedly being anticipated by the de Groot patent (U.S. Patent No. 6,359,692). This rejection is respectfully traversed.

Independent claim 6 recites a method for recording an interferogram wherein, among other things, the interferogram is generated by a weighted averaging over the different radiation frequencies of intensities of the plurality of interference patterns at respective positions of the interferogram.

In contrast, the de Groot patent does not disclose weighted averaging over different radiation frequencies of intensities of a plurality of interference patterns, as recited in claim 6, to generate an interferogram. Rather the de Groot patent discloses recording a optical interference image for each of multiple wavelengths (e.g., col. 2., lines 18-20), as opposed to recording an interferogram by weighted averaging over the multiple wavelengths. In fact, the de Groot patent discloses at col. 10, lines 40-44 the undesirability of integrating over multiple frequencies.

Also, the de Groot patent discloses extracting phases from an interference pattern selected from the above-noted images (e.g., col. 2, lines 23-30). The de Groot patent discloses a phase shifting interferometry (PSI) approach referred to as the "thirteen frame algorithm" (col. 8, lines 28-63) wherein data from such images (each pertaining to a given